Year 7 Progress Grid – Spring Term

Name: **Class:**

Topic	**Grades 3/2/1 -** (D/E/F)	**Grades 6/5/4 -** (B/C)	**Grades 9/8/ 7 -** (A*/A)
Terminology	I need support to use the correct terminology	I sometimes use the correct terminology	I always use the correct terminology
Number Systems	• I can identify storage capacity in size order with help • I can convert 2 bit binary numbers into denary • I can explain the term 'character set'	• I can identify storage capacity in size order • I can convert 4 bit binary numbers into denary • I can explain how ASCII represents that character set of a computer	• I can identify storage capacity in size order • I can convert 8 bit binary numbers into denary • I can explain the difference between using an ASCII character set and a Unicode character set
Encryption	• I am aware of one method of encryption (Morse)	• I am aware of different methods of encryption (Morse, Semaphore, Caesar Ciphers)	• I am aware of a range of encryption methods (Morse, Semaphore, Caesar Ciphers and Vigniere Ciphers)
Image Representation	• Using binary code provided, I can represent images on paper • I can explain the term metadata	• Using binary code provided, I can represent images on paper • I can create my own images using binary code • I can explain the term metadata and apply to limited scenarios	• I can represent images on paper using binary code • I can create my own images using binary code • I can explain the term metadata and apply it to a range of scenarios

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Software	• I can explain the term software
	• I can explain the purpose of an operating system and give at least 2 examples
		• I can explain the term software
		• I can explain the purpose of an operating system
		• I can explain the main categories of software and give examples:
		  ○ Proprietary
		  ○ Bespoke/Customised
		  ○ Operating Systems
		  ○ Open Source
			• I can explain the term software
			• I can explain the purpose of an operating system
			• I can explain the main categories of software and give examples
			• I can give examples of the main types of software
			• I can explain the advantages and disadvantages of different categories of software

Databases	• I can explain the term database
	• I can recognise some of the main features of a database
	  ○ Tables
	  ○ Fields
	  ○ Records
	• I can recognise the main data types
		• I can explain the term database
		• I can recognise most of the main features of a database:
		  ○ Tables
		  ○ Fields
		  ○ Records
		  ○ Queries
		• I can recognise most data types
			• I can explain the term database
			• I can recognise most of the main features of a database:
			  ○ Tables
			  ○ Fields
			  ○ Records
			  ○ Queries
			  ○ Reports
			  ○ Data Entry Forms
			• I can recognise all data types

Computational Thinking	• I can explain the term 'algorithm' and give limited examples • I can write basic pseudocode steps • I can follow a basic flow chart (sequence) • I can recognise some flowchart symbols	• I can explain the term 'algorithm' and give some examples • I can explain the term decomposition • I can create an algorithm • I can write pseudocode steps • I can recognise most flow chart symbols	• I can explain the term 'algorithm' and give a range of examples • I can explain the term decomposition • I can create my own algorithm • I can write detailed pseudocode steps • I can recognise a range of flowchart symbols

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		• I can create a flowchart to match pseudocde	• I can create a flowchart to match pseudocode
Visual Programming	• I am familiar with the basic features within the Scratch interface • I can create a polygon in Scratch (square)	• I am familiar with most features within the Scratch interface • I can independently create a range of polygons	• I am familiar with a range of features within the Scratch interface • I can independently create a wide range of polygons • I can create Spirograph patterns using polygons
Text Based Programming	• I am familiar with the basic features within the Python interface • I can recognise the difference between the Command Line and IDLE interfaces • I can use Turtle graphics to create a polygon (square/sequence) using the code provided • I can alter the pen size and colour, with support	• I am familiar with most features within the Python interface • I can explain the difference between the Command Line and IDLE interfaces • I can use Turtle graphics to create polygons using the code provided • I can independently alter the pen size and colour • I can change the speed of the turtle	• I am familiar with a range of features within the Python interface • I can explain the difference between the Command Line and IDLE interfaces • I can explain the advantages and disadvantages between the Command Line and the IDLE interfaces • I can use Turtle graphics to create a range of polygons using the code provided including loops • I can independently alter the pen size and colour • I can change the speed of the turtle • I can change the shape of the turtle • I can relate the pen colour to Hexadecimal code